Meijer Holland
bale handling systems

Fred 2-3 / 3-4
Fred 3-4 HD / 4-5 HD

Manual

Bale grab

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Content

1. Introduction

The Meijer Holland bale grabs of the ‘Fred’ type are designed to be attached to a telescopic handler, front loader, wheel loader or crane (hereinafter referred to as ‘vehicle’) in order to grab and transport straw or hay bales over a short distance. The bale grab is equipped with a hydraulic circuit that is to be connected to the hydraulic system of the vehicle.

It is important to read the manual carefully before using the machine. There could be a risk of serious injury or damage to the environment if the bale grab is not used properly. Moreover, damages to the material or to the machine might occur. It is therefore important to follow the instructions of this manual.

2. Technical specifications

Features		Fred 2–3	Fred 3–4	Fred 3–4 HD	Fred 4–5 HD
height	cm	135	230	230	280
width	cm	16758	165	175	165
weight	cm	360	435	530	530
volume hydraulic circuit	ltr	2	2	2	2
max. load	kg	1125	1500	1500	2000
number of bales (lxwxh) 240x120x90 cm 240x120x70 cm		 2 3	 3 4	 3 4	 4 5
max. pressure hydraulic circuit	bar	180	180	180	180

⚠ When using a vehicle with a pressure higher than 180 bar, it is strongly recommended to use a pressure relief valve.
This is available at Meijer Holland.

CE-marking
This machine is certified with the CE-marking. This means that the machine meets the requirements of the applicable EC directives on safety and health. These directives are specified in the attached declaration of conformity.

⚠
- The non-observance of the rules and instructions stated in this manual is to be considered as serious negligence which leads to the extinguishment of any liability on the part of Meijer Holland concerning the resulting consequences. In this case, the risk lies exclusively with the user.
- Meijer Holland is constantly busy with the improvement of its products. Therefore, it also reserves the right to make any changes that are considered necessary. There is no obligation to apply these changes to earlier delivered machines.

3. Safety precautions

The following precautions are important to prevent injuries and damages.

1. Read the manual before use.
2. Only experts should (dis)mount the bale grab to the vehicle.
3. Only experts should operate the bale grab.
4. Use the bale grab only for bales.
5. Check whether the hydraulic system is working well right after having mounted the bale grab.
6. Follow the instructions for use (chapter 6).
7. The working area of the machine is five meters:
   - no persons are allowed within that range!
8. Operate the bale grab exclusively from the cabin of the vehicle.
9. Mind the rules for max. load (chapter 2).
10. Be aware of oil leakage:
    - check the hydraulic hoses and cylinders at least once a day
11. Replace damaged or worn wires and cylinders immediately.
12. Follow the instructions for maintenance (chapter 7).
13. Take into account that the sight of the driver is limited when there are bales in the bale grab.
14. When driving longer distances or driving on a public road:
    - no bales are permitted in the bale grab!
    - when the front loader tines are mounted, protect the points with the red guard bracket or dismount them
15. Drive straight backwards after having moved the bales.
    - the stack of bales might fall over when driving backwards crookedly
16. When reversing:
    - make sure that there are no people behind the vehicle

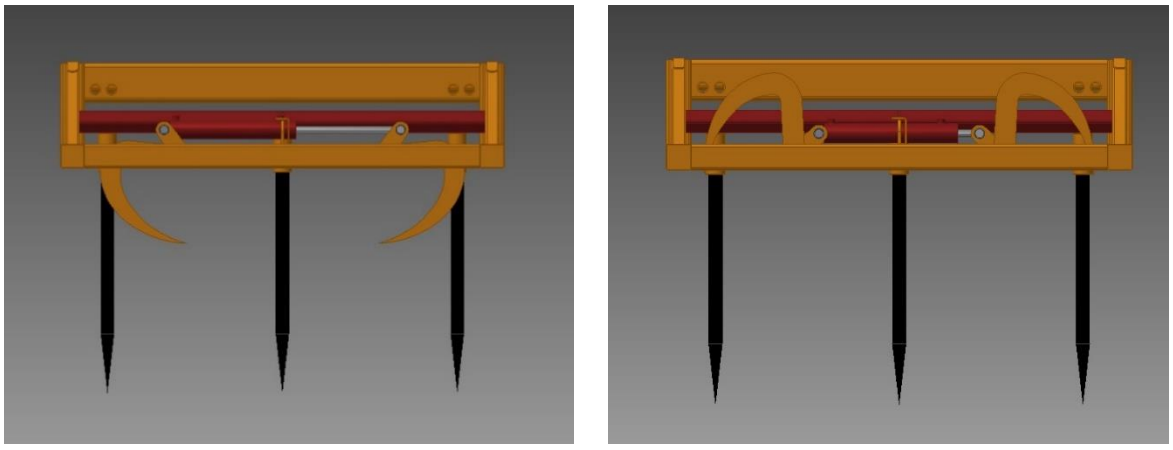
Build the stack of straw and hay bales in a stable way so that it cannot fall over. The driver must be aware of the rules that apply to the lifting and hoisting of heavy loads.

4. The functioning of the bale grab

Mount the bale grab to a vehicle with a hydraulic system. The bale grab only works when it is attached correctly to the hydraulic system of the vehicle.

One movement is possible with the bale grab:

- The clamping of the bales takes place with the help of hooks that are mounted on rotatable shafts which are powered by a hydraulic cylinder. This movement can be seen in the figure below.



movement of clamping hooks seen from above

5. Installation, starting up, adjustment

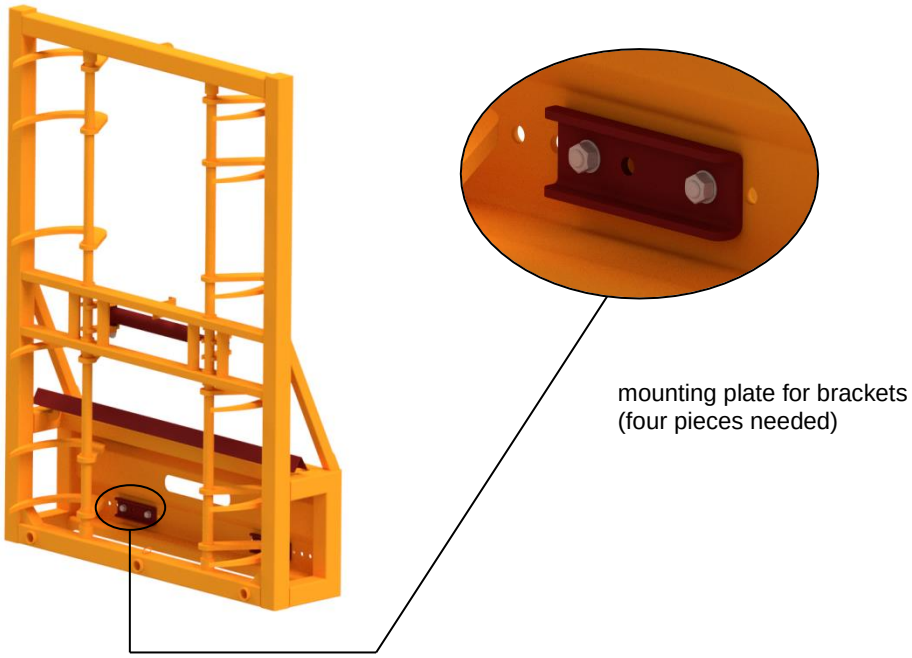
> ⚠ Check if the bale grab is undamaged and in good condition on delivery. Please contact Meijer Holland if you notice any damages. Use the grab only if it is found to be in good order and after this manual has been read.

5.1 After delivery

Place the bale grab on a solid and even ground.

5.2 Before moving the bales

1. Remove the guard brackets and attach the front loader tines in the right way.
2. Assemble the mounting parts and attach the four supplied red mounting plates to the rear side of the mounting surface (see drawing below).
3. Drive the vehicle in such a way to the bale grab that the mounting surface of the vehicle falls against the mounting point of the bale grab.
4. Attach the bale grab to the vehicle.
5. Check the couplings for dirt. Attach only clean couplings to prevent dirt from entering the system.
6. Connect the two correct hydraulic hoses of the vehicle to the two quick release couplings above the mounting point of the bale grab. The upper hose is for clamping the bales and the lower one is for releasing them.
7. Check for leakage.
8. Check the correct control of the cylinder from the hydraulic system.
9. Put the hydraulic system under pressure and test the bale grab by opening and closing the hooks.



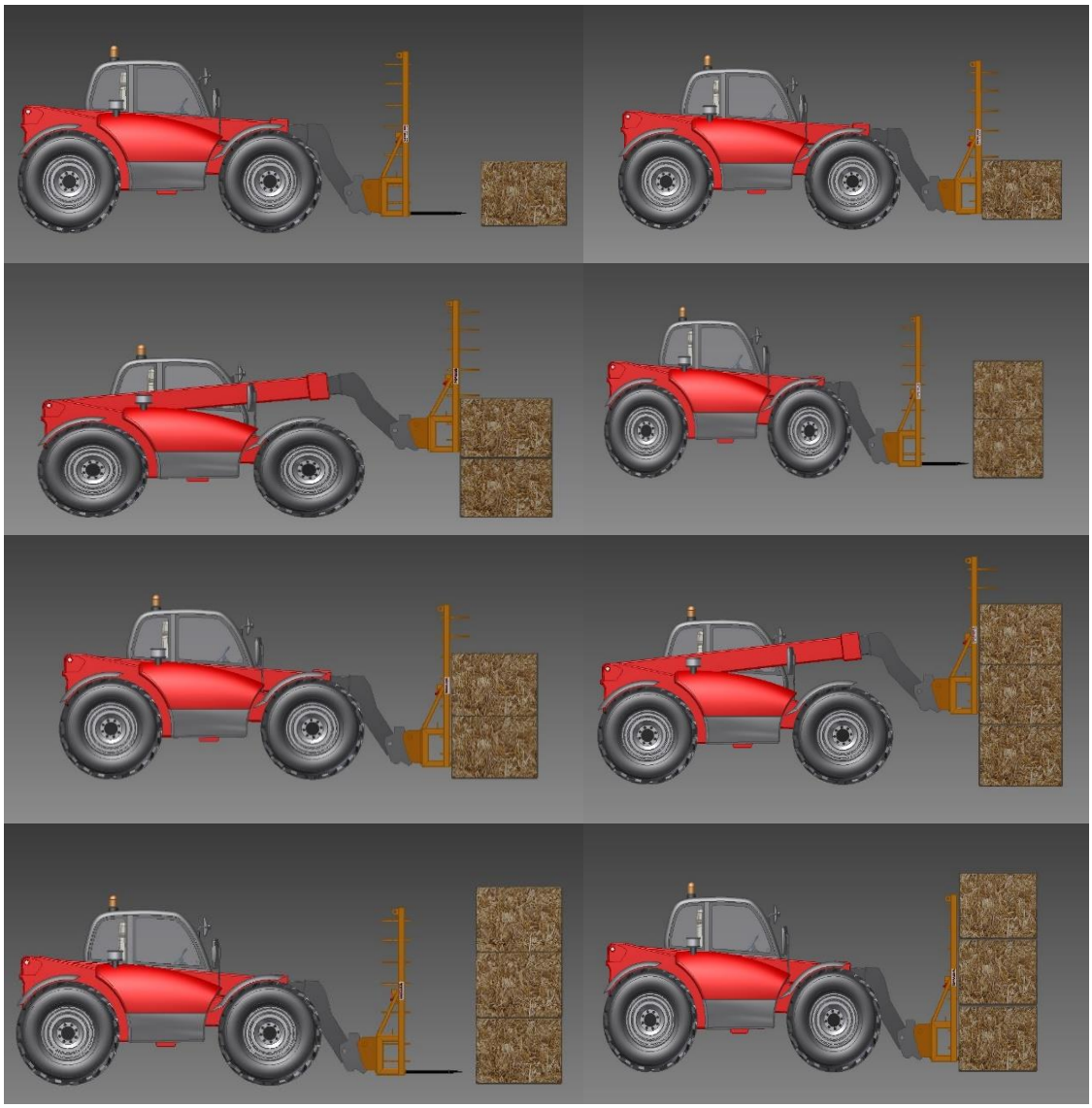
5.3 After moving the bales

1. Place the bale grab with the vehicle on a solid and even ground.
2. Check whether the bale grab stands steady.
3. Remove both front loader tines and attach them to the frame. Protect the points with the guard bracket.
4. Disconnect the hydraulic hoses and check them for leakage.
5. Dismount the junction of the vehicle from the bale grab and drive the vehicle away in reverse.

Store the grab in a dry and clean environment until the next use.

6. Operation and use

1. Drive the vehicle in such a way to the bale that the lowest front loader tines (if applicable) push into the bale.
2. When the frame pushes against the bale, the hydraulic system can be operated. Once the bales are clamped, put the hydraulic system back in neutral.
3. Lift the bale and drive the vehicle to the place of destination or to the next bale, as seen in the figure below.
4. Let the bales sink to the loading floor and put the hydraulic system in ‘return’. By doing so, the hooks open and the bales are released.
5. Drive the vehicle away so that the three front loader tines are pulled straight out of the bales.
6. The bale grab is ready to grab and move another series of bales.



use Fred

7. Maintenance

Regular maintenance extends the life span. The bale grab needs relatively few maintenance.

Maintenance schedule

Before every use	Check the bale grab for damages and wear. Replace damaged or worn parts.
	Check the hydraulic couplings, hoses and cylinders for leakage, wear and damages. Let problems be fixed immediately by a competent mechanic.
At least once a week	Clean the grab of caked dirt and dust. When using a high-pressure washer, avoid the electrical parts.
	Put grease on the grease nipples. At extensive use: after every eight working hours add a bit of grease (0,86 grams per grease nipple).

8. Problems and solutions

8.1 General

The bale grab has relatively few moveable parts and damages are unlikely to occur when used properly. Repair or replace damaged and worn parts immediately. Spare parts are available at Meijer Holland.

- Turn off the engine of the vehicle while you are fixing one of the below-mentioned problems.
- Turn off the power supply during welding.
- Hydraulic fluid is a poisonous liquid that is harmful to the environment. Never try to shut a leak with your hand. Fluid under high pressure easily penetrates through skin and clothing and can cause serious injuries.

Problem	Possible cause	Solution
The hooks are not moving.	The hydraulic circuit of the bale grab is not attached to the hydraulic system of the vehicle.	Attach the two hoses.
	The hydraulic circuit of the bale grab is not attached correctly.	Exchange the wrongly attached hydraulic hoses.
	Malfunction in the hydraulic system of the vehicle.	Consult the manual of the vehicle.
	The hooks or the shafts on which they are attached are blocked.	Look for the blockade and remove it.

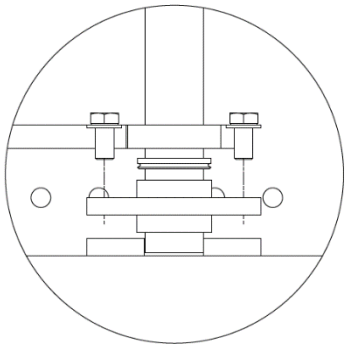
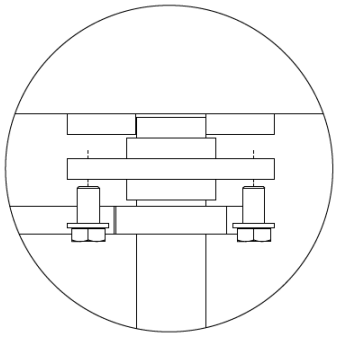
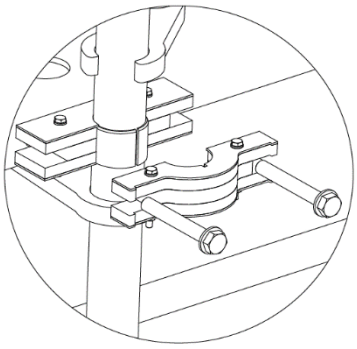
8.2 Heavy Duty

The Fred HD version is equipped with an interchangeable shaft with hooks.
These hooks are durable and only need to be replaced if they are damaged. The shaft with hooks is available upon request.

The replacement of the shaft hooks is done as follows:

1. Place the bale grab on a firm and level surface so that the grab cannot fall over.
2. Loosen the lower and upper bearings.
3. First slide the lower bearing bush upwards. If necessary, use a plastic hammer.
4. Then slide the upper bearing bush downwards.
5. Loosen the middle (separable) bearings.
6. Remove the shaft from the frame at the front.
7. Insert the new shaft. Do this in the reverse order of removal.

⚠ Never change the shaft with hooks alone! The weight of this is approx. 75 kg.

		
step 3	step 4	step 5

9. Environment and disposal

The bale grab has a hydraulic circuit that contains hydraulic fluid, a poisonous liquid that is harmful to the environment. Regularly check the bale grab for leakage and replace damaged or worn parts immediately.

9.1 Disposal of the bale grab

- Drain the hydraulic system and let the fluid be disposed by an authorised company.
- The rest of the bale grab is made of coated steel and can be disposed of as scrap.

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CE-Declaration of conformity

We, Meijer Holland
Bale handling systems
Duinkerkenstraat 11
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Nederland
Tel: +31 (0)50 - 312 64 48

declare under our sole responsibility that:

1. **we are the manufacturer of:**
   MH Fred 2–3 (model MHFRED23)
   MH Fred 3–4 (model MHFRED34)
   MH Fred 3–4 Heavy Duty (model MHFRED34HD)
   MH Fred 4–5 Heavy Duty (model MHFRED45HD)

2. **the machine complies with the following applicable directives:**
   Machinery directive 2006/42/EG

3. **the machine is designed and constructed according to European standards, including:**
   - NEN-EN-ISO 13854:2019
   - EN-ISO 4413:2010
   - EN-ISO 12100:2010

The electrics and the control section are the responsibility of the customer.

Groningen, 10 July 2023

J.F. Lommerts, *director*